### Indiana Department of Environmental Management



Governor

Lori F. Kaplan Commissioner

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100 North Senate Avenue P. O. Box 6015 Indianapolis, Indiana 46206-

6015

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## **NEW SOURCE CONSTRUCTION PERMIT** AND MINOR SOURCE OPERATING PERMIT OFFICE OF AIR QUALITY

### **Powell Paving Company (Portable)**

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-5.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operation Permit No.: MSOP 117-15484-05220 Issued by: Original signed by Issuance Date: August 12, 2002 Paul Dubenetzky, Branch Chief Office of Air Quality Expiration Date: August 12, 2007

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#### SECTION A

#### SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

#### A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

The Permittee owns and operates a portable drum mix asphalt plant.

Authorized Individual: Randall Powell

Initial Source Address: 2583 South State Road #1, Cambridge City, Indiana 47327 Mailing Address: 2583 South State Road #1, Cambridge City, Indiana 47327

Phone Number: 765-478-6139 SIC Code: 2951

Initial County Location: Wayne County

County Status: Attainment for all criteria pollutants

Source Status: Part 70 Permit Program

Minor Source under PSD;

Minor Source, Section 112 of the Clean Air Act

#### A.2 Emissions units and Pollution Control Equipment Summary

This portable source is approved to construct and operate the following emissions units and pollution control devices:

- (a) One (1) aggregate dryer/mixer with a maximum capacity of 110 tons per hour, having a burner with a maximum heat input rate of 40.1 million British thermal units per hour, exhausting through a venturi scrubber at stack SV-1. The burner is fired by natural gas and uses #2 distillate fuel oil as a backup fuel.
- (b) One (1) natural gas-fired heater with a maximum heat input capacity of 0.45 MMBtu per hour.
- (c) Three (3) cold feed bins each with a maximum capacity of 20 tons.
- (d) One (1) silo with a maximum capacity of 100 tons.
- (e) One (1) drag conveyor with a maximum capacity of 150 tons per hour.
- (f) One (1) AC oil storage tank with a maximum capacity of 30,000 gallons.
- (g) One (1) #2 fuel oil storage tank with a maximum capacity of 10,000 gallons.

#### A.3 Part 70 Permit Applicability [326 IAC 2-7-2]

This portable source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because It is a major source, as defined in 326 IAC 2-7-1(22).

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#### SECTION B GENERAL CONSTRUCTION CONDITIONS

#### B.1 Permit No Defense [IC 13]

This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

#### B.2 Definitions

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

#### B.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

#### B.4 Revocation of Permits [326 IAC 2-1.1-9(5)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

#### B.5 Modification to Permit [326 IAC 2]

Notwithstanding the Section B condition entitled "Minor Source Operating Permit", all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

#### B.6 Minor Source Operating Permit [326 IAC 2-6.1]

This document shall also become a minor source operating permit pursuant to 326 IAC 2-6.1 when, prior to start of operation, the following requirements are met:

- (a) The attached Affidavit of Construction shall be submitted to the Office of Air Quality (OAQ), Permit Administration & Development Section.
  - (1) If the Affidavit of Construction verifies that the facilities covered in this Construction Permit were constructed as proposed in the application, then the facilities may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.
  - (2) If the Affidavit of Construction does not verify that the facilities covered in this Construction Permit were constructed as proposed in the application, then the Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section prior to beginning operation of the facilities.
- (b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
- (c) Upon receipt of the Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section, the Permittee shall attach it to this document.

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(d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-7-19 (Fees).

(e) Pursuant to 326 IAC 2-7-4(a)(1)(A)(ii) and 326 IAC 2-5.1-4, the Permittee shall apply for a Title V operating permit within twelve (12) months of the date on which the source first meets an applicability criterion of 326 IAC 2-7-2.

#### B.7 NSPS Reporting Requirement

Pursuant to the New Source Performance Standards (NSPS), Part 60, Subparts I and Kb, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:

- (a) Commencement of construction date (no later than 30 days after such date);
- (b) Anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
- (c) Actual start-up date (within 15 days after such date); and
- (d) Date of performance testing (at least 30 days prior to such date), when required by a condition elsewhere in this permit.

Reports are to be sent to:

Indiana Department of Environmental Management Compliance Data Section, Office of Air Quality 100 North Senate Avenue, P. O. Box 6015 Indianapolis, IN 46206-6015

The application and enforcement of these standards have been delegated to the IDEM, OAQ. The requirements of 40 CFR Part 60 are also federally enforceable.

#### B.8 Permit Term [326 IAC 2-6.1-7]

This permit is issued for a fixed term of five (5) years from the original date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications or amendments of this permit do not affect the expiration.

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#### **SECTION C**

#### **SOURCE OPERATION CONDITIONS**

#### **Entire Source**

#### C.1 PSD Minor Source Status [326 IAC 2-2] [40 CFR 52.21]

(a) The total source potential to emit PM, PM-10, and VOC is limited to less than 250 tons per year. Therefore, the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration), 40 CFR 52.21, will not apply.

#### C.2 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) after issuance of this permit, including the following information on each emissions unit:
  - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that failure to implement the Preventive Maintenance Plan does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) PMP's shall be submitted to IDEM, OAQ, upon request and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its Preventive Maintenance Plan whenever lack of proper maintenance causes or contributes to any violation.

#### C.3 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

- (a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management Permits Branch, Office of Air Quality 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1.

(c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

#### C.4 Source Modification [326 IAC 2-7-10.5]

(a) The Permittee must comply with the requirements of 326 IAC 2-7-10.5 whenever the Permittee seeks to construct new emissions units, modify existing emissions units, or otherwise modify the source.

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(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management Permits Branch, Office of Air Quality 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

Any such application should be certified by the "responsible official" as defined by 326 IAC 2-7-1(34) only if a certification is required by the terms of the applicable rule.

#### C.5 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;
- (c) Inspect, at reasonable times, any processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

#### C.6 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Pursuant to [326 IAC 2-6.1-6(d)(3)]:

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAQ, Permits Branch, within thirty (30) days of the change.
- (b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).
- (c) IDEM, OAQ, shall issue a revised permit.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

#### C.7 Permit Revocation [326 IAC 2-1-9]

Pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to construct and operate may be revoked for any of the following causes:

(a) Violation of any conditions of this permit.

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- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM , the fact that continuance of this permit is not consistent with purposes of this article.

#### C.8 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

#### C.9 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

#### C.10 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on May 24, 2002. The plan is included in this permit and is attached hereto as Attachment A.

#### C.11 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted by using good engineering practices (GEP) pursuant to 326 IAC 1-7-3.

#### **Testing Requirements**

#### C.12 Performance Testing [326 IAC 3-6]

(a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

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Indiana Department of Environmental Management Compliance Data Section, Office of Air Quality 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

(b) All test reports must be received by IDEM, OAQ within forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

#### **Compliance Monitoring Requirements**

#### C.13 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

#### C.14 Monitoring Methods [326 IAC 3]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

#### C.15 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 1-6]

- (a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ upon request. The CPR shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintain on site, and comprised of:
  - (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.
  - (2) If, at anytime, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.
- (b) For each compliance monitoring condition of this permit, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:
  - (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or

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- (2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.
- (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.
- (4) Failure to take reasonable response steps shall constitute a violation of the permit.
- (c) The Permittee is not required to take any further response steps for any of the following reasons:
  - (1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.
  - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.
  - (3) An automatic measurement was taken when the process was not operating.
  - (4) The process has already returned to operating within "normal" parameters and no response steps are required.
- (d) The Permittee shall record all instances when response steps are taken.
- (e) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

#### C.16 Actions Related to Noncompliance Demonstrated by a Stack Test

- (a) When the results of a stack test performed in conformance with Section C Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected emissions unit while the corrective actions are being implemented. IDEM, OAQ shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAQ within thirty (30) days of receipt of the notice of deficiency. IDEM, OAQ reserves the authority to use enforcement activities to resolve noncompliant stack tests.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline. Failure of the second test to demonstrate compliance

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with the appropriate permit conditions may be grounds for immediate revocation of the permit to operate the affected emissions unit.

The documents submitted pursuant to this condition do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

#### **Record Keeping and Reporting Requirements**

#### C.17 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality(OAQ) or appointed representative upon request.
- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

#### C.18 Annual Emission Statement [326 IAC 2-6]

- (a) Permittees located or relocated in Clark, Elkhart, Floyd, Marion, St. Joseph, and Vanderburgh counties, as specified in 326 IAC 2-6, shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that must be received by April 15 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission statement shall meet the following requirements:
  - (1) Indicate actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);
  - (2) Indicate actual emissions of other regulated pollutants from the source, for purposes of Part 70 fee assessment.
- (b) The annual emission statement covers the twelve (12) consecutive month time period starting December 1 and ending November 30. The annual emission statement must be submitted to:

Indiana Department of Environmental Management Technical Support and Modeling Section, Office of Air Quality 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

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(c) The annual emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

#### C.19 Monitoring Data Availability [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) With the exception of performance tests conducted in accordance with Section C-Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.
- (b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.
- (c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.
- (d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.
- (e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.
- (f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

#### C.20 General Record Keeping Requirements [326 IAC 2-6.1-2]

- (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAQ, representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Records of required monitoring information shall include, where applicable:
  - (1) The date, place, and time of sampling or measurements;
  - (2) The dates analyses were performed;
  - (3) The company or entity performing the analyses;
  - (4) The analytic techniques or methods used;

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- (5) The results of such analyses; and
- (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include, where applicable:
  - (1) Copies of all reports required by this permit;
  - All original strip chart recordings for continuous monitoring instrumentation;
  - (3) All calibration and maintenance records;
  - (4) Records of preventive maintenance shall be sufficient to demonstrate that failure to implement the Preventive Maintenance Plan did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C Compliance Response Plan Preparation, Implementation, Records, and Reports, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.
- (d) All record keeping requirements not already legally required shall be implemented when operation begins.

#### C.21 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

(a) Reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management Compliance Data Section, Office of Air Quality 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

#### C.22 Annual Notification [326 IAC 2-6.1-5(a)(5)]

- (a) Annual notification shall be submitted to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.
- (b) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.

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(c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 1 of each year to:

Compliance Branch, Office of Air Quality Indiana Department of Environmental Management 100 North Senate Avenue, P.O. Box 6015 Indianapolis, IN 46206-6015

(d) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

#### **Portable Source Requirement**

#### C.23 Relocation of Portable Sources [326 IAC 2-14-4] [326 IAC 2-6.1-6(g)(2)]

- (a) This permit is approved for operation in all areas of Indiana except in severe nonattainment areas for ozone (at the time of this permit's issuance these areas were Lake and Porter Counties). This determination is based on the requirements of Prevention of Significant Deterioration in 326 IAC 2-2 and 40 CFR 52.21, and Emission Offset requirements in 326 IAC 2-3. A thirty (30) day advance notice of relocation must be given to IDEM, OAQ, and a "Relocation Site Approval" letter must be obtained before relocating.
- (b) The Permittee shall also notify the applicable local air pollution control agency when relocating to, or from, one of the following:
  - (1) Madison County (Anderson Office of Air Management)
  - (2) City of Evansville plus four (4) miles beyond the corporate limits but not outside Vanderburgh County (Evansville EPA)
  - (3) City of Gary (Gary Division of Air Pollution)
  - (4) City of Hammond (Hammond Department of Environmental Management)
  - (5) Marion County (Indianapolis Air Pollution Control Agency)
  - (6) St. Joseph County (St. Joseph County Health Department)
  - (7) Vigo County (Vigo County Air Pollution Department)
- (c) A valid operation permit consists of this document and any subsequent "Relocation Site Approval" letter specifying the current location of the portable plant.
- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- (b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

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#### **SECTION D.1**

#### **EMISSIONS UNIT OPERATION CONDITIONS**

#### **Facility Description:**

- (a) One (1) aggregate dryer/mixer with a maximum capacity of 110 tons per hour, having a burner with a maximum heat input rate of 40.1 million British thermal units per hour, exhausting through a venturi scrubber at stack SV-1. The burner is fired by natural gas and uses #2 distillate fuel oil as a backup fuel.
- (b) One (1) natural gas-fired heater with a maximum heat input capacity of 0.45 MMBtu per hour.
- (c) Three (3) cold feed bins each with a maximum capacity of 20 tons.
- (d) One (1) silo with a maximum capacity of 100 tons.
- (e) One (1) drag conveyor with a maximum capacity of 150 tons per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

#### **Emission Limitations and Standards**

- D.1.1 Particulate Matter (PM) [326 IAC 6-1-2(a)] [40 CFR 60, Subpart I] [326 IAC 2-2] [326 IAC 2-3] [40 CFR 52.21][326 IAC 12]
  - (a) Pursuant to 326 IAC 6-1-2(a)(Nonattainment Area Particulate Limitations), particulate matter (PM) emissions from the asphalt plant shall be limited to 0.03 grains per dry standard cubic foot (gr/dscf). This is equivalent to 5.4 pounds per hour and 23.7 tons per year at an exhaust gas flow rate of 21,000 actual cubic feet per minute (acfm) and temperature of 275°F. Compliance with this requirement ensures compliance with Condition D.1.1 and also makes the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration), 40 CFR 52.21, and 326 IAC 2-3 (Emission Offset) not applicable.
  - (b) Pursuant to the New Source Performance Standards, 326 IAC 12 (40 CFR 60.90 to 60.93, Subpart I):
    - (1) particulate matter emissions from the asphalt plant shall not exceed 0.04 grains per dry standard cubic foot (gr/dscf), and
    - (2) the visible emissions from the plant shall not exceed 20 percent opacity.

This emission limitation is equivalent to 7.2 pounds per hour based on an exhaust rate of 21,000 dscfm and an exhaust temperature of 275 degrees Fahrenheit.

#### D.1.2 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR Part 60, Subpart A]

The provisions of 40 CFR Part 60, Subpart A (General Provisions), which are incorporated by reference in 326 IAC 12-1, apply to the asphalt plant except when otherwise specified in 40 CFR Part 60, Subpart I.

D.1.3 Particulate Matter Less Than Ten Microns (PM-10) [326 IAC 2-2] [326 IAC 2-3] [40 CFR 52.21]

The emissions of PM-10 from the aggregate dryer/mixer shall be limited to 0.18 pounds of PM-10 per ton of asphalt produced. This is equivalent to PM-10 emissions of 86.7 tons per twelve (12) consecutive month period. The PM-10 emissions from the whole source are therefore, limited to less than 87 tons per twelve (12) consecutive month period. Compliance with this limit makes 326 IAC 2-2 (PSD), 40 CFR 52.21 and 326 IAC 2-3 (Emission Offset) not applicable.

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#### D.1.4 Volatile Organic Compounds (VOC) [326 IAC 2-2] [326 IAC 2-3] [40 CFR 52.21]

The Permittee shall not manufacture or otherwise handle cold mix asphalt at this portable asphalt plant. If after issuance of this permit, the Permittee decides to manufacture or handle cold mix asphalt, the Permittee shall obtain approval from IDEM, OAQ before any such operations begin.

#### D.1.5 Sulfur Dioxide (SO<sub>2</sub>) Emission Limitations [326 IAC 7-1.1-1] [326 IAC 7-1.1-2]

Pursuant to 326 IAC 7-1.1-2 (Sulfur Dioxide Emission Limitations), the SO<sub>2</sub> emissions from the combustion of #2 fuel oil shall not exceed five tenths (0.5) pounds per million Btu heat input. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average sulfur content.

#### D.1.6 Miscellaneous Operations: Asphalt Paving [326 IAC 8-5-2]

Pursuant to 326 IAC 8-5-2, no person shall cause or allow the use of cutback asphalt or asphalt emulsion containing more than 7 percent oil distillate by volume of emulsion of any paving application except:

- (a) Penetrating prime coating;
- (b) Stockpile storage; and
- (c) Application during the months of November, December, January, February, and March.

#### D.1.7 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section C - Preventive Maintenance Plan, of this permit, is required for this emissions unit and any control devices .

#### **Compliance Determination Requirements**

#### D.1.8 Sulfur Dioxide Emissions and Sulfur Content

Compliance shall be determined utilizing one of the following options.

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pounds per million Btu heat input by:
  - (1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification; or
  - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
    - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
    - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the 40.1 MMBtu per hour burner, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

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#### D.1.9 Particulate Matter (PM)

In order to comply with D.1.1 and D.1.3, the scrubber for PM and PM-10 control shall be in operation and control emissions from the aggregate dryer/mixer at all times that the aggregate dryer/mixer are in operation.

#### Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [ 326 IAC 2-6.1-5(a)(2)]

#### D.1.10 Visible Emissions Notations

- (a) Visible emission notations of the aggregate dryer/mixer stack exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C Compliance Response Plan Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

#### D.1.11 Monitoring of Scrubber Operational Parameters

The Permittee shall record the scrubber flow rate and pressure drop across the scrubber used in conjunction with the aggregate dryer/mixer, at least once per shift when the aggregate dryer/mixer is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the scrubber is outside the normal range of 10 and 20 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. When for any one reading, the flow rate of the scrubber is less than the minimum established during the latest stack test, the Permittee, shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Implementation, Preparation, Records, and Reports. A pressure reading that is outside the above mentioned range or a flowrate that is below the above mentioned minimum is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instruments used for determining the pressure and flow rate shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

#### D.1.12 Scrubber Inspections

An inspection shall be performed each calendar quarter of all scrubbers controlling the aggregate dryer/mixer when venting to the atmosphere. A scrubber inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors.

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#### D.1.13 Failure Detection

In the event that a scrubber malfunction has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports shall be considered a violation of this permit.

#### Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [ 326 IAC 2-6.1-5(a)(2)]

#### D.1.14 Record Keeping Requirements

- (a) To document compliance with Condition D.1.5 and D.1.8, the Permittee shall maintain records in accordance with (1) through (6) below.
  - (1) Calendar dates covered in the compliance determination period;
  - (2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;
  - (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period, the natural gas fired boiler certification does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1); and
    - If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:
  - (4) Fuel supplier certifications.
  - (5) The name of the fuel supplier; and
  - (6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

- (b) To document compliance with Condition D.1.10, the Permittee shall maintain records of visible emission notations of the hot mix asphalt facility stack exhaust.
- (c) To document compliance with Condition D.1.11, the Permittee shall maintain weekly records of the following operational parameters during normal operation when venting to the atmosphere:
  - (1) Pressure drop across the scrubber; and
  - (2) Scrubbant and blow-down flow rate.

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(d) To document compliance with Condition D.1.12, the Permittee shall maintain records of the results of the inspections required under Condition D.1.12 and the dates the vents are redirected.

(e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

Powell Paving Company Indiana

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#### **SECTION D.2**

#### **EMISSIONS UNIT OPERATION CONDITIONS**

#### **Facility Description:**

- (f) One (1) AC oil storage tank with a maximum capacity of 30,000 gallons.
- (g) One (1) #2 fuel oil storage tank with a maximum capacity of 10,000 gallons.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

#### **Emission Limitations and Standards**

#### D.2.1 Volatile Organic Compound Storage Vessels [40 CFR 60, Subpart Kb] [326 IAC 12]

- (a) The 30,000 gallon AC oil storage tank is subject to 40 CFR 60, Subpart Kb because its maximum capacity is greater than 40m³, it is used to store volatile organic liquids (including petroleum), and construction commenced after July 23, 1984.
  - Pursuant to 40 CFR 60.116b paragraphs (a) and (b), the Permittee shall maintain records as stated in Condition D.2.2.
- (b) The AC oil storage tank is exempt from the General Provisions (Part 60, Subpart A) and from all other provisions of this subpart because this storage tank has a capacity greater than 75m³ but less than 151m³ and is used to store liquid with a maximum true vapor pressure less than 15.0 kPa.

#### Record Keeping and Reporting Requirement [326 IAC 2-5.1-3(e)(2)] [ 326 IAC 2-6.1-5(a)(2)]

#### D.2.2 Record Keeping Requirements [326 IAC 12][40 CFR 60, Subpart Kb]

Pursuant to 40 CFR 60, Subpart Kb (326 IAC 12), the Permittee shall maintain records in accordance with (1) through (4) below for the 30,000 gallon AC oil storage tank:

- (1) The volatile organic liquid stored in the tank;
- (2) The period of storage;
- (3) The maximum true vapor pressure of the volatile organic liquid during the storage period; and
- (4) The dimensions of the storage tanks and an analysis showing the capacity of the storage tanks.

The Permittee shall notify the Administrator within 30 days when the maximum true vapor pressure of the liquid exceeds the respective maximum true vapor pressure values for each volume range. (Available data on the storage temperature may be used to determine the maximum vapor pressure as indicated in 40 CFR 60.117b(e)(1) through (3)).

#### D.2.3 Volatile Organic Compounds (VOC) [326 IAC 8-9]

Pursuant to 326 IAC 8-9-6 (Volatile Organic Liquid Storage Vessels), for the #2 fuel oil storage tank, the owner or operator of a stationary vessel with a capacity of less than thirty-nine thousand (39,000) gallons, and which is not exempt, shall maintain a record and submit to the department a report containing the following information on the vessel:

(a) The vessel identification number.

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- (b) The vessel dimensions.
- (c) The vessel capacity.
- (d) A description of the emission control equipment for each vessel described in 326 IAC 8-9-4 (a) and 4 (b), applicable, or a schedule for installation of emission control equipment on vessels described in 326 IAC 8-9-4(a) and 4 (b), if applicable, with a certification that the emission control equipment meets the applicable standards.

The owner or operator of a stationary vessel shall keep all records as described for the life of the vessel.

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#### INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT **OFFICE OF AIR QUALITY Compliance Branch**

#### MINOR SOURCE OPERATING PERMIT **ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

Company Name:	Powell Paving Company			
Address:	2583 South State Road #1			
City:	Cambridge City, Indiana 47327			
Phone #:	765-478-6139			
MSOP #:	117-15484-05220			
I hereby certify that Po	owell Paving Company is 9 still in operation. 9 no longer in operation.			
I hereby certify that Po	well Paving Company is 9 in compliance with the requirements of MSOP 117-15484-05220. 9 not in compliance with the requirements of MSOP 117-15484-05220.			
Authorized Individu	ual (typed):			
Title:				
Signature:				
Date:				
	ons or requirements for which the source is not in compliance, provide a narrative source did or will achieve compliance and the date compliance was, or will be			
Noncompliance:				

Powell Paving Company Indiana

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#### MALFUNCTION REPORT

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY FAX NUMBER - 317 233-5967

This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4. THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?\_\_\_\_, 25 TONS/YEAR SULFUR DIOXIDE ?\_\_\_\_, 25 TONS/YEAR NITROGEN OXIDES?\_ 25 TONS/YEAR VOC ?\_\_\_\_, 25 TONS/YEAR HYDROGEN SULFIDE ?\_\_\_\_, 25 TONS/YEAR TOTAL REDUCED SULFUR , 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?\_\_\_\_, 25 TONS/YEAR FLUORIDES ?\_\_\_\_, 100TONS/YEAR CARBON MONOXIDE ?\_\_\_\_\_, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?\_\_\_\_, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT?\_\_\_\_\_, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?\_\_\_\_, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?\_\_\_\_. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC \_\_\_\_\_\_ OR, PERMIT CONDITION # \_\_\_\_\_ AND/OR PERMIT THIS INCIDENT MEETS THE DEFINITION OF 'MALFUNCTION' AS LISTED ON REVERSE SIDE? Y THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT? Y \_\_\_\_\_PHONE NO. ( )\_\_ COMPANY: LOCATION: (CITY AND COUNTY) PERMIT NO. \_\_\_\_\_ AFS PLANT ID: \_\_\_\_ AFS POINT ID: \_\_\_\_ INSP:\_\_ CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: DATE/TIME MALFUNCTION STARTED: \_\_\_\_/\_\_\_/ 20\_\_\_\_ AM / PM ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: \_\_ DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE\_\_\_\_/\_\_\_/ 20\_\_\_\_\_ AM/PM TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER:\_\_\_\_ ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: \_\_\_ MEASURES TAKEN TO MINIMIZE EMISSIONS:\_

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE <u>ESSENTIAL\*</u> SERVICES:

CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS:

CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT:

INTERIM CONTROL MEASURES: (IF APPLICABLE)

\_\_\_TITLE:\_\_\_

MALFUNCTION REPORTED BY:\_\_\_\_\_(SIGNATURE IF FAXED)

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MALFUNCTION RECORDED BY:\_\_\_\_\_\_DATE:\_\_\_\_\_TIME:\_\_\_\_\_\_

\*SEE PAGE 2

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# Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

#### 326 IAC 1-6-1 Applicability of rule

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

#### 326 IAC 1-2-39 "Malfunction" definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

\*Essential services are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

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### Attachment A

Fugitive Particulate Matter Emissions Control Plan

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Permit Reviewer: ERG/ARB

# Fugitive Particulate Matter Emissions Control Plan for Powell Paving Company

Submitted May 24, 2002

- 1. Truck cargoes will be covered during transit to reduce fugitive dust emissions from paved roadways. If fugitive dust emissions from any paved roadways are observed, Powell Paving will use wet suppression or other methods to control these emissions.
- 2. Fugitive particulate matter emissions from parking lots and yards shall be controlled by applying water when necessary.
- 3. Fugitive particulate matter emissions from storage piles and the conveying/handling of raw materials shall be controlled by applying water when necessary.

### **August 12, 2002**

# Indiana Department of Environmental Management Office of Air Quality

# Addendum to the Technical Support Document for Minor Source Operating Permit (MSOP)

#### **Source Background and Description**

Source Name: Powell Paving Company

Source Location: 2583 South State Road #1, Cambridge City, Indiana 47327

County: Wayne County

SIC Code: 2951

Operation Permit No.: 117-15484-05220

Permit Reviewer: ERG/ARB

On June 18, 2002, the Office of Air Quality (OAQ) had a notice published in the Palladium, Richmond, Indiana, stating that Powell Paving Company had applied for a Minor Source Operating Permit (MSOP) to operate a portable drum mix asphalt plant with control. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On July 11, 2002, Powell Paving Company submitted comments on the proposed MSOP. The summary of the comments is as follows:

#### Comment 1:

Powell Paving Company uses natural gas as their primary fuel and #2 distillate fuel oil as the backup fuel for the aggregate dryer/mixer. They request that Condition A.2(a) and Condition D.1(a) be revised to reflect this.

#### **Response to Comment 1:**

IDEM, OAQ, has made the following changes to the permit:

#### A.2 Emissions units and Pollution Control Equipment Summary

This portable source is approved to construct and operate the following emissions units and pollution control devices:

(a) One (1) aggregate dryer/mixer with a maximum capacity of 110 tons per hour, having a burner with a maximum heat input rate of 40.1 million British thermal units per hour, exhausting through a venturi scrubber at stack SV-1. The burner is fired by **natural gas and uses** #2 distillate fuel oil **as a backup fuel**.

#### SECTION D.1

#### **EMISSIONS UNIT OPERATION CONDITIONS**

#### **Facility Description:**

(a) One (1) aggregate dryer/mixer with a maximum capacity of 110 tons per hour, having a burner with a maximum heat input rate of 40.1 million British thermal units per hour, exhausting through a venturi scrubber at stack SV-1. The burner is fired by **natural gas and uses** #2 distillate fuel oil **as a backup fuel**.

#### Comment 2:

The source requested the storage capacity of the silo listed in Conditions A.2(d) and D.1(d) be changed to 100 tons.

#### **Response to Comment 2:**

IDEM, OAQ has made the following changes to the permit:

#### A.2 Emissions units and Pollution Control Equipment Summary

This portable source is approved to construct and operate the following emissions units and pollution control devices:

(d) One (1) silo with a maximum capacity of 80 100 tons.

#### **SECTION D.1**

#### **EMISSIONS UNIT OPERATION CONDITIONS**

#### **Facility Description:**

(d) One (1) silo with a maximum capacity of 80 100 tons.

#### Comment 3:

The source requested the Annual Emissions Statement be due on July 1st instead of April 15th and the reporting period be January 1st through December 31st.

#### **Response to Comment 3:**

Powell Paving Company is a portable source that can relocate to Clark, Elkhart, Floyd, Marion, St. Joseph, and Vanderburgh counties. This source has the potential to emit oxides of nitrogen into the ambient air at levels greater than ten (10) tons per year; therefore, pursuant to 326 IAC 2-6-1(a), this source is required to submit an annual emission statement. Pursuant to 326 IAC 2-6-3 (Compliance Schedule), the annual emission statement for this source is due April 15th and pursuant to 326 IAC 2-6-4 (Requirements) the statement should cover the twelve (12) consecutive month time period starting December 1 and ending November 30. Since the submission deadline and the reporting period stated in the permit are consistent with the requirements of 326 IAC 2-6, IDEM, OAQ, has made no change to the permit as a result of this comment.

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#### Comment 4:

Powell Paving Company requested permission to operate their portable plant in all areas of Indiana except the following counties: Lake, Porter, Clark, Floyd, St. Joseph, Vanderburgh, Howard, Dearborn, Marion, Dubois, and Vigo so that 326 IAC 2-3 (Emission Offset) and 326 IAC 6-1 (Particulate Nonattainment Area Limitations) would not apply.

#### **Response to Comment 4:**

This source will initially be located in Wayne County, and is therefore subject to 326 IAC 6-1. Also note that the counties listed above, with the exception of Lake and Porter, are all currently attainment for all criteria pollutants. The permit already contains a prohibition for Lake and Porter Counties; therefore, the Emission Offset Rule, 326 IAC 2-3, does not apply as the permit was drafted. Since 326 IAC 6-1 will still be applicable to this portable source and 326 IAC 2-3 already does not apply, IDEM, OAQ, has made no changes to the permit as a result of this comment.

#### Comment 5:

The source requested Condition D.1.1(a) be revised to read as follows: Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations), the particulate matter from the mixing and drying operation shall be limited to 52.2 pounds per hour.

#### **Response to Comment 5:**

This portable asphalt plant will initially be located in Wayne County, and is therefore subject to 326 IAC 6-1-2(a) (Nonattainment Area Particulate Limitations). Emissions of particulate from the asphalt plant are limited to 0.03 grains per dry standard cubic foot, which is equivalent to 23.7 tons per year. IDEM, OAQ, has made no changes to the permit as a result of this comment.

#### Comment 6:

Powell Paving requested the PM-10 emission factor in Condition D.1.3, be changed to 0.18 pounds of PM-10 per ton of asphalt produced. This is equivalent to a emission rate of 86.7 tons of PM-10 per year and a production capacity of 963,333 tons of asphalt per year.

#### **Response to Comment 6:**

Since the new emission limited proposed by the source will still limit emissions of PM-10 from the entire source to less than 100 tons per year, IDEM, has revised Condition D.1.3 as shown below:

#### D.1.3 Particulate Matter Less Than Ten Microns (PM-10) [326 IAC 2-2] [326 IAC 2-3] [40 CFR 52.21]

The emissions of PM-10 from the aggregate dryer/mixer shall be limited to 0.045 0.18 pounds of PM-10 per ton of asphalt produced. This is equivalent to PM-10 emissions of 21.7 86.7 tons per twelve (12) consecutive month period. The PM-10 emissions from the whole source are therefore, limited to less than 22.0 87 tons per twelve (12) consecutive month period. Compliance with this limit makes 326 IAC 2-2 (PSD), 40 CFR 52.21 and 326 IAC 2-3 (Emission Offset) not applicable.

#### Comment 7:

Powell Paving requested all reference to cold mix asphalt be removed from the permit and that the potential emissions be adjusted accordingly. Powell Paving stated that they do not intend to manufacture cold mix asphalt or bid on jobs that require the use of cold mix asphalt.

#### **Response to Comment 7:**

IDEM, OAQ, has revised the permit as shown below and has removed the liquid binder solvent reporting forms:

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

## **Single Liquid Binder Solvent Quarterly Report**

<del>Source Name:</del>	Powell Pavir	<del>ng Company</del>					
Initial Source Address	s: 2583 South	2583 South State Road #1, Cambridge City, Indiana 47327					
Mailing Address:		2583 South State Road #1, Cambridge City, Indiana 47327					
FESOP No.:	F117-15334-	F117-15334-05220					
Facility:	Asphalt Plar	<del>nt</del>					
Parameter:	<del>VOC</del>	·					
Limit:	Cutback asp	Cutback asphalt rapid cure liquid binder usage shall not exceed 99 tons of					
	<del>VOC solvent</del>	VOC solvent per twelve (12) consecutive month period rolled on a monthly					
	<del>basis. Cutb</del>	basis. Cutback asphalt medium cure liquid binder usage shall not exceed					
	135 tons of	VOC solvent per twelve (12) cons	secutive month period rolled				
	on a monthl	<del>y basis.  Cutback asphalt slow c</del>	ure liquid binder usage shall				
	not exceed 3	3 <del>76 tons of VOC solvent per twe</del> l	ve (12) consecutive month				
		period rolled on a monthly basis. Emulsified asphalt with solvent liquid					
		e shall not exceed 202 tons of VC					
	consecutive	month period rolled on a monthl	y basis. Other asphalt with				
		d binder shall not exceed 3,762 to	•				
	•	utive month period rolled on a mo	•				
	YEAR	· · · · · · · · · · · · · · · · · · ·					
The following liquid	<del>l binder solvent was th</del>	<del>ne only liquid binder solvent u</del>	sed over the previous				
12 month period:	Limit appli	<del>cable:</del>					
<del>(use of more than one</del>	binder requires the use o	of the "Multiple Liquid Binder Solv	<del>rents" report form)</del>				
	Column 1	Column 2	Column 1 + Column 2				
<del>Month</del>	This Month (tons)	Previous 11 Months (tons)	12 Month Total (tons)				
	` '	, ,	• • • • • • • • • • • • • • • • • • • •				
Month 1							
M (1 0							
Month 2							
Month 3							
พิเมาเมาอ							
9 No d	eviation occurred in this	reporting period.					
9 Devi	ation/s occurred in this re	eporting period.					

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——————————————————————————————————————	en reported on:
Submitted by:	
Title / Position:	
Signature:	
Phone:	
	Attach a signed certification to complete this report.

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Indiana Permit Reviewer: ERG/ARB

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

## **Multiple Liquid Binder Solvent Quarterly Report**

Source Name:	Powell Paving Company
Initial Source Address:	2583 South State Road #1, Cambridge City, Indiana 47327
Mailing Address:	2583 South State Road #1, Cambridge City, Indiana 47327
FESOP No.:	F117-15334-05220
Equility:	Asphalt Plant
Parameter:	VOC
Limit:	100 tone per veer
Limit:	<del>- 100 tons per year</del>

Year:

<del>Month</del>	<del>Type of Liquid binder</del>	Solvent Usage This Month (tons)	Divisor	VOC emitted This Month (tons) for each solvent	<del>VOC emitted</del> <del>This Month (tons)</del>	VOC emitted Previous 41 Months (tons)	This month + Previous 11months =VOC emitted 12 Month Total (tons)	
Month 1	Gutback asphalt rapid cure		4					
	Cutback asphalt medium cure		<del>1.36</del>					
	Cutback asphalt slow cure		3.8					
	Emulsified asphalt		<del>2.04</del>					
	other asphalt		<del>38</del>					
Month 2	Gutback asphalt rapid cure		4					
	Gutback asphalt medium cure		<del>1.36</del>					
	Cutback asphalt slow cure		3.8					
	Emulsified asphalt		<del>2.04</del>					
	other asphalt		<del>38</del>					
Month 3	Cutback asphalt rapid cure		4					
	Gutback asphalt medium cure		<del>1.36</del>					
	Gutback asphalt slow cure		3.8		1			
	Emulsified asphalt		<del>2.04</del>					
	other asphalt		<del>38</del>					

	-			
No de	viation occurred in this reportin	a neriod		
Deviet	tion/c occurred in thic reporting	noriod		
Devia	<del>non/s occurred in this reporting</del>	periou.		
Dovice	tion has been reported on:		_	
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The Permittee shall not manufacture or otherwise handle cold mix asphalt at this portable asphalt plant. If after issuance of this permit, the Permittee decides to manufacture or handle cold mix asphalt, the Permittee shall obtain approval from IDEM, OAQ before any such operations begin.

- (a) The VOC solvent used as diluent in the liquid binder used in cold mix asphalt production from the plant shall be limited such that no more than 99 tons of VOC emissions emitted per twelve (12) consecutive months. This shall be achieved by limiting the total VOC solvent of any one selected binder to not exceed the stated limit in (c) for that binder during the last twelve (12) months. When more than one binder is used, the formula in (c)(6) must be applied so that the total VOC emitted does not exceed 99 tons per twelve (12) consecutive month period.
- (b) Liquid binders used in the production of cold mix asphalt shall be defined as follows:
  - (1) <u>Cut back asphalt rapid cure</u>, containing a maximum of 25.3% of the liquid binder by weight of VOC solvent and 95% by weight of VOC solvent evaporating.
  - (2) <u>Cut back asphalt medium cure</u>, containing a maximum of 28.6% of the liquid binder by weight of VOC solvent and 70% by weight of VOC solvent evaporating.
  - (3) <u>Cut back asphalt slow cure</u>, containing a maximum of 20% of the liquid binder by weight of VOC solvent and 25% by weight of VOC solvent evaporating.
  - (4) Emulsified asphalt with solvent, containing a maximum of 15% of liquid binder by weight of VOC solvent and 46.4% by weight of the VOC solvent in the liquid blend evaporating. The percent oil distillate in emulsified asphalt with solvent liquid, as determined by ASTM, must be 7% or less of the total emulsion by volume
  - (5) Other asphalt with solvent binder, containing a maximum 25.9% of the liquid binder of VOC solvent and 2.5% by weight of the VOC solvent evaporating
- (c) The liquid binder used in cold mix asphalt production shall be limited as follows:
  - (1) Cutback asphalt rapid cure liquid binder usage shall not exceed 99 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.
  - (2) Cutback asphalt medium cure liquid binder usage shall not exceed 135 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.
  - (3) Cutback asphalt slow cure liquid binder usage shall not exceed 376 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.
  - (4) Emulsified asphalt with solvent liquid binder usage shall not exceed 202 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.
  - (5) Other asphalt with solvent liquid binder shall not exceed 3,762 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.
  - (6) The VOC solvent allotments in subpart (c)(1) through (c)(5) of this condition shall be adjusted when more than one type of binder is used per twelve (12) month consecutive period rolled on a monthly basis. In order to determine the tons of VOC emitted per each type of binder, use the following formula and divide the tons

of VOC solvent used for each type of binder by the corresponding adjustment ratio listed in the table that follows:

<u>Tons of solvent contained in binder</u> = tons of VOC emitted Adjustment ratio

Type of Binder	Tons VOC Solvent	Adjustment Ratio	Tons VOC Emitted
<del>Cutback Asphalt</del> <del>Rapid Cure</del>		4	
Cutback Asphalt Medium Cure		<del>1.36</del>	
Cutback Asphalt Slow Cure		<del>3.8</del>	
Emulsified Asphalt		<del>2.04</del>	
Other Asphalt		<del>38</del>	

The equivalent total tons of VOC of the combined liquid binders shall be less than 99 tons per twelve (12) consecutive month period rolled on a monthly basis. Compliance with this limit makes 326 IAC 2-2 (PSD), 40 CFR 52.21, and 326 IAC 2-3 (Emission Offset) not applicable.

#### D.1.14 Record Keeping Requirements

- (b) To document compliance with Condition D.1.4 Volatile Organic Compounds (VOC), the Permittee shall maintain records documenting VOC usage as follows:
  - (1) Amount and type of liquid binder used in the production of cold mix asphalt each month.
  - (2) Type and VOC content by weight of the liquid binder used in the production of cold mix asphalt each month.
  - (3) Amount of VOC used in the production of cold mix asphalt each month.

Records may include: delivery tickets, manufacturer's data, material safety data sheets (MSDS), and other documents necessary to verify the type and amount used. Test results of ASTM tests for asphalt cutback and asphalt emulsion may be used to document volatilization.

- **(b)(c)** To document compliance with Condition D.1.10, the Permittee shall maintain records of visible emission notations of the hot mix asphalt facility stack exhaust.
- (c)(d) To document compliance with Condition D.1.11, the Permittee shall maintain weekly records of the following operational parameters during normal operation when venting to the atmosphere:
  - (1) Pressure drop across the scrubber; and

Powell Paving Company Cambridge City, Indiana 47327 Permit Reviewer: ERG/ARB

- (2) Scrubbant and blow-down flow rate.
- (d)(e) To document compliance with Condition D.1.12, the Permittee shall maintain records of the results of the inspections required under Condition D.1.12 and the dates the vents are redirected.
- (e)(f) All records shall be maintained in accordance with Section C General Record Keeping Requirements, of this permit.

#### **D.1.15** Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.4 shall be submitted to the address listed in Section C - General Reporting Requirements, of the permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Pemittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

#### Comment 8:

Powell Paving requested the references to roadways be deleted from Attachment A (Fugitive Particulate Matter Emissions Control Plan) because all of the roadways will be paved.

# **Response to Comment 8:**

IDEM, OAQ, has not deleted the reference to roadways from the control plan, because paved roads may be a source of fugitive particulate matter. Since the potential for fugitive particulate matter emissions from paved roadways is much less than those from unpaved roadways, IDEM, OAQ has made the following revisions to the control plan:

# Fugitive Particulate Matter Emissions Control Plan for Powell Paving Company

Submitted May 24, 2002

- 1. Truck cargoes will be covered during transit to reduce fugitive dust emissions from paved roadways. If fugitive dust emissions from any paved roadways are observed, Powell Paving will use wet suppression or other methods to control these emissions.
- **12**. Fugitive particulate matter emissions from <del>plant roadways,</del> parking lots and yards shall be controlled by applying water when necessary. <del>- and limiting vehicular speeds to 10 miles per hour.</del>
- **23**. Fugitive particulate matter emissions from storage piles and the conveying/handling of raw materials shall be controlled by applying water when necessary.

Due to the revisions to the PM10 emission limit and other changes requested by the source the IDEM, OAQ, has recalculated the potential emissions from the source. The table below reflects the source's potential to emit of the significant emission units after controls.

Powell Paving Company Cambridge City, Indiana 47327 Permit Reviewer: ERG/ARB

	Potential to Emit After Controls (tons/year)						
Process/facility	PM	PM-10	SO <sub>2</sub>	VOC	СО	NO <sub>X</sub>	HAPs
Batch Mixer and Dryer	21.7	86.7	0.11	0.97	14.75	17.56	3.8
Natural Gas Heater	0.01	0.01	0.0	0.01	0.17	0.2	0.0
Storage	0.02	0.01	0.0	0.0	0.0	0.0	0.0
Conveying	1.8	0.2	0.0	0.0	0.0	0.0	0.0
Total Emissions	23.5	86.9	0.11	0.98	14.9	17.8	3.8

No changes have been made to the TSD because the OAQ prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

# **August 12, 2002**

# Indiana Department of Environmental Management Office of Air Quality

# Technical Support Document (TSD) for a New Source Construction and Minor Source Operating Permit

# **Source Background and Description**

Source Name: Powell Paving Company

Source Location: 2583 South State Road #1, Cambridge City, Indiana 47327

County: Wayne SIC Code: 2951

Operation Permit No.: 117-15484-05220

Permit Reviewer: ERG/ARB

The Office of Air Quality (OAQ) has reviewed an application from Powell Paving Company relating to the construction and operation of a portable drum mix asphalt plant.

#### **Permitted Emission Units and Pollution Control Equipment**

There are no permitted facilities operating at this source during this review process.

# **Unpermitted Emission Units and Pollution Control Equipment**

There are no unpermitted facilities operating at this source during this review process.

# New Emission Units and Pollution Control Equipment Receiving Prior Approval

- (a) One (1) aggregate dryer/mixer with a maximum capacity of 110 tons per hour, having a burner with a maximum heat input rate of 40.1 million British thermal units per hour, exhausting through a venturi scrubber at stack SV-1. The burner is fired by #2 distillate fuel oil.
- (b) One (1) natural gas-fired heater with a maximum heat input capacity of 0.45 MMBtu per hour.
- (c) Three (3) cold feed bins each with a maximum capacity of 20 tons.
- (d) One (1) silo with a maximum capacity of 80 tons.
- (e) One (1) drag conveyor with a maximum capacity of 150 tons per hour.
- (f) One (1) AC oil storage tank with a maximum capacity of 30,000 gallons.
- (g) One (1) #2 fuel oil storage tank with a maximum capacity of 10,000 gallons.

# **Existing Approvals**

No previous approvals have been issued to this source.

#### **Enforcement Issue**

There are no enforcement actions pending.

# **Stack Summary**

Stack ID	Operation	Height	Diameter	Flow Rate	Temperature
		(feet)	(feet)	(acfm)	(°F)
SV-1	Aggregate Dryer	20	3	21,000	275

#### Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on April 8, 2002, with additional information received on April 19, 2002 and May 24, 2002.

#### **Emission Calculations**

See Appendix A of this document for detailed emissions calculations (pages 1 through 6).

# **Potential To Emit of Source Before Controls**

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential To Emit (tons/year)
PM	13,491.9
PM-10	3,132.2
SO <sub>2</sub>	87.8
VOC	>100
CO	6.5
NO <sub>x</sub>	30.3

<sup>\*</sup> VOC emissions from asphalt plants are primarily from the use of cut back asphalt. This proposed permit allows the source to use cut back asphalt. Hence, the PTE for VOC is estimated to be greater than 100 tons per year.

HAP's	Potential To Emit (tons/year)
Formaldehyde	1.5
Toluene	1.4
Other HAPs	0.9
TOTAL	3.8

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM10 and VOC are greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) Fugitive Emissions

This type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2. However, there is an applicable New Source Performance Standard that was in effect on August 7, 1980. Therefore, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are counted toward determination of PSD and Emission Offset applicability.

# **County Attainment Status**

The source is located in Wayne County.

Pollutant	Status
PM-10	attainment
SO <sub>2</sub>	maintenance
NO <sub>2</sub>	attainment
Ozone	attainment
CO	attainment
Lead	attainment

This 110 ton per hour asphalt drum mix plant is a portable source initially located in Wayne County. As a portable source the plant can be located in both attainment and nonattainment areas excluding the severe ozone nonattainment areas of Lake and Porter Counties. Therefore, the criteria pollutant emissions, including volatile organic compounds (VOC) which are the precursor pollutants considered when evaluating rule applicability relating to the ozone standards, were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD) (326 IAC 2-2 and 40 CFR 52.21), and the requirements for Emission Offset (326 IAC 2-3).

#### Portable Source

- (a) Initial Location
  This is a portable source and its initial location is 2583 South State Road #1,
  Cambridge City, Indiana 47327.
- (b) PSD and Emission Offset Requirements
  The emissions from this portable source were reviewed under the requirements of the
  Prevention of Significant Deterioration (PSD) (326 IAC 2-2, 40 CFR 52.21), and Emission
  Offset (326 IAC 2-3).
- (c) Fugitive Emissions
  This type of operation is not one of the twenty-eight (28) listed sources under 326 IAC 2-2,
  40 CFR 52.21, or 326 IAC 2-3. However, there is an applicable New Source Performance
  Standard that was in effect on August 7, 1980. Therefore, the fugitive particulate matter

(PM) and volatile organic compound (VOC) emissions are counted toward determination of PSD and Emission Offset applicability.

- (d) Relocation of Portable Sources [326 IAC 2-14-4] [326 IAC 2-6.1-6(d)(2)]
  This permit is approved for operation in all areas of Indiana except in nonattainment areas
  Lake and Porter Counties. This determination is based on the requirements of Prevention
  of Significant Deterioration in 326 IAC 2-2 and 40 CFR 52.21, and Emission Offset
  requirements in 326 IAC 2-3. A thirty (30) day advance notice of relocation must be given
  to IDEM, OAQ, and a "Relocation Site Approval" letter must be obtained before relocating.
- (e) Notification of Relocation

  The Permittee shall also notify the applicable local air pollution control agency when relocating to, or from, one the following:
  - (1) Madison County (Anderson Office of Air Management)
  - (2) City of Evansville plus four (4) miles beyond the corporate limits but not outside Vanderburgh County (Evansville EPA)
  - (3) City of Gary (Gary Division of Air Pollution)
  - (4) City of Hammond (Hammond Department of Environmental Management)
  - (5) Marion County (Indianapolis Air Pollution Control Agency)
  - (6) St. Joseph County (St. Joseph County Health Department)
  - (7) Vigo County (Vigo County Air Pollution Department)
- (f) Valid Operation Permit

A valid operation permit consists of the permit (F117-15484-05220) and any subsequent "Relocation Site Approval" letter specifying the current location of the portable plant.

#### **Source Status**

New Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	23.6
PM10	21.9
SO <sub>2</sub>	87.8
VOC	<100
CO	6.5
$NO_x$	30.3
Single HAP	1.5
Combination HAPs	3.8

(a) This new source is not a major stationary source because no attainment pollutant will be emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source

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Indiana MSOP 117-15484-05220

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categories. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

(b) This new portable source is not permitted to relocate to the nonattainment counties of Lake and Porter. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.

#### Part 70 Permit Determination

#### 326 IAC 2-7 (Part 70 Permit Program)

This new source is subject to the Part 70 Permit requirements because the potential to emit (PTE) of at least one of the criteria pollutants is greater than or equal to 100 tons per year.

This new source shall apply for a Part 70 (Title V) operating permit within twelve (12) months after this source becomes subject to Title V.

[Note: The source specifically requested the MSOP/new construction permit instead of the Title V permit in order to begin construction and operation of this new plant as soon as possible. The source indicated during telephone conversations that they are considering applying for a Title V permit instead of Federally Enforceable State Operating Permit (FESOP) even though this source would be eligible for the FESOP program.]

# **Federal Rule Applicability**

(a) The AC oil storage tank is subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60, Subpart Kb), because this tank has a capacity of greater than 10,567 gallons (40 cubic meters). Since the storage capacity of this tank is less than 151 cubic meters (39,898 gallons) and the oil has a vapor pressure less than 15.0 kPa (2.16 psi), this storage vessel is exempt from the standards in 40 CFR 60.112b. However, the Permittee must comply with the record keeping requirements outlined in 40 CFR 60.116b(a) and (b), which require the source to maintain records of the design capacity and dimensions of the storage tanks on-site for the life of the tank.

The #2 fuel oil storage tank is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60, Subpart Kb), because this tank has a capacity of less than 10,567 gallons (40 cubic meters).

- (b) The asphalt plant is subject to the New Source Performance Standard, 326 IAC 12, (40 CFR 60, Subpart I), because construction commenced after June 11, 1973, the applicability date for this rule. Pursuant to 40 CFR Subpart I, the particulate matter emissions from the asphalt plant shall not exceed 0.04 grains per dry standard cubic foot and the visible emissions from the asphalt plant shall not exceed 20 percent opacity. This limit is equivalent to 7.2 pounds per hour and 31.5 ton per year.
- (c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14 and 40 CFR Part 63) applicable to this source.

# State Rule Applicability - Entire Source

#### 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset)

(a) The potential to emit PM and PM-10 from this portable source are greater than 100 tons per year. The principal source of PM and PM-10 emissions is the aggregate dryer/mixer. The source will install a venturi scrubber to control the PM and PM-10 emissions from the dryer. The PM emissions are limited to 0.03 gr/dscf (5.4 pounds per hour) by 326 IAC 6-1-

- 2(a). The PM-10 emissions are limited to 0.045 pounds per ton of asphalt produced. These requirements limit PM and PM-10 emissions from the entire source to 31.5 tons per year and 21.7 tons per year, respectively. The operation of the venturi scrubber will ensure that the source complies with these limits and that the PM and PM-10 emissions from the entire source are less than 100 tons per year. Therefore, 326 IAC 2-2, (PSD) 40 CFR 52.21, and 326 IAC 2-3 (Emission Offset) are not applicable.
- (b) The potential to emit VOC from this portable asphalt plant is greater than 100 tons per year. The principal source of VOC emissions is the use of cutback asphalt. The source will limit the amount and type of asphalt used at the plant such that VOC emissions from the entire source are limited to less than 100 tons per year. Therefore, 326 IAC 2-2 (PSD), 40 CFR 52.21, 326 IAC 2-3 (Emission Offset) are not applicable.

The liquid binder used in cold mix asphalt production shall be limited as follows:

- (1) Cutback asphalt rapid cure liquid binder usage shall not exceed 99 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.
- (2) Cutback asphalt medium cure liquid binder usage shall not exceed 135 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.
- (3) Cutback asphalt slow cure liquid binder usage shall not exceed 376 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.
- (4) Emulsified asphalt with solvent liquid binder usage shall not exceed 202 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.
- (5) Other asphalt with solvent liquid binder shall not exceed 3,762 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.
- (6) The VOC solvent allotments in (1) through (5) above shall be adjusted when more than one type of binder is used per twelve (12) month consecutive period rolled on a monthly basis. In order to determine the tons of VOC emitted per each type of binder, use the following formula and divide the tons of VOC solvent used for each type of binder by the corresponding adjustment ratio listed in the table that follows.

<u>Tons of solvent contained in binder</u> = tons of VOC emitted Adjustment ratio

Type of binder	Tons VOC Solvent	Adjustment Ratio	Tons VOC Emitted
Cutback Asphalt Rapid Cure		1	
Cutback Asphalt Medium Cure		1.36	
Cutback Asphalt Slow Cure		3.8	

Emulsified Asphalt	2.04	
Other Asphalt	38	

The equivalent total tons of VOC of the combined liquid binders shall be less than 99 tons per twelve consecutive month period rolled on a monthly basis.

## 326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it is a portable source and it has the potential to emit more than ten (10) tons per year of VOC or NOx in any one of the specifically listed counties, except Lake and Porter counties. Pursuant to this rule, the Permittee must submit an annual emission statement for the source. The statement must be received in accordance with the compliance schedule specified in 326 IAC 2-6 and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8).

#### 326 IAC 6-4 (Fugitive Dust Emissions)

Pursuant to 326 IAC 6-4, the source shall not generate fugitive dust to the extent that some portion of the material escapes beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located.

# 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)

This new portable asphalt plant is subject to the requirements of 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), because it is a new source of fugitive particulate matter constructed after December 13, 1985. The source submitted their control plan on May 24, 2002. A copy of the plan is included as Attachment A to the permit.

# 326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of thirty percent (30%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

# State Rule Applicability - Individual Facilities

# 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

Pursuant to 326 IAC 2-4.1-1 (New Source Toxics Control), any new process or production unit, which in and of itself emits or has the PTE 10 tons per year of any HAP or 25 tons per year of any combination of HAPs, and is constructed or reconstructed after July 27, 1997, must be controlled using technologies consistent with Maximum Achievable Control Technology (MACT). This drum mix asphalt plant will be constructed in 2002 and has no facilities with an uncontrolled PTE of 10 tons per year of any single HAP or 25 tons per year of any combination of HAPs. Therefore, the requirements of 326 IAC 2-4.1-1 (New Source Toxics Control) do not apply to this source.

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As a portable source which can be located in all counties except Lake and Porter Counties, this source is subject to 326 IAC 6-1-2. The requirements of 326 IAC 6-1-2(c) for Asphalt Concrete Plants do not apply since the source, was not an existing facility as of June 11,1973; therefore, the general requirement of 326 IAC 6-1-2(a) shall apply. Pursuant to this rule, particulate matter emissions from the asphalt plant shall not exceed 0.03 grain per dry standard cubic foot (gr/dscf). This is equivalent to 5.4 pounds per hour and 23.7 tons per year at an exhaust gas flow rate of 21,000 actual cubic feet per minute (acfm) and temperature of 275°F. Compliance with this requirement shall make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.

# 326 IAC 6-3 (Process Operations)

Pursuant to 326 IAC 6-3-1(b)(2), the asphalt plant is not subject 326 IAC 6-3 (Process Operations) because the plant is subject to NSPS 40 CFR 60, Subpart I.

# 326 IAC 7-1.1-2 (Sulfur Dioxide (SO2) Emission Limitations)

Pursuant to 326 IAC 7-1.1-2, the SO2 emissions from the aggregate dryer/mixer shall not exceed five tenths (0.5) pounds per MMBtu heat input. This is equivalent to 0.5% sulfur in the fuel oil.

## 326 IAC 8-1-6 (New Facilities - General Reduction Requirement)

Although the aggregate dry mixer has potential VOC emissions equal to or greater than twenty five (25) tons per year, this facility is not subject to the provisions of 326 IAC 8-1-6 because the facility is subject to 326 IAC 8-5-2 (Miscellaneous Operations: Asphalt Paving).

## 326 IAC 8-5-2 (Miscellaneous Operations: Asphalt Paving)

Pursuant to 326 IAC 8-5-2, no person shall cause or allow the use of cutback asphalt or asphalt emulsion containing more than 7 percent oil distillate by volume of emulsion of any paving application except:

- (a) Penetrating prime coating;
- (b) Stockpile storage; and
- (c) Application during the months of November, December, January, February, and March.

This rule applies because the aggregate dryer/mixer was constructed after January 1, 1980, the applicability date for this rule.

## 326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)

Pursuant to 326 IAC 8-9-1, the #2 fuel oil storage tank is subject to the requirements of 326 IAC 8-9-1 because it could relocate to Clark and Floyd Counties. Since the capacity of this storage tank is less than 39,000 gallons, the tank is only subject to the reporting and record keeping requirements of the rule provided in 326 IAC 8-9-6(a) and (b).

The AC oil storage tank is exempt from this rule by 326 IAC 8-9-2(8), because this storage tank is subject to the recordkeeping requirement in 40 CFR 60, Subpart Kb.

# **Compliance Requirements**

- 1. The aggregate dryer/mixer has applicable compliance monitoring conditions as specified below:
  - (a) Visible emissions notations of the aggregate dryer/mixer stack exhaust shall be performed once per shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means

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those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

(b) The Permittee shall record the scrubber flow rate and pressure drop across the scrubber used in conjunction with the aggregate dryer/mixer, at least once per shift when the aggregate dryer/mixer is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the scrubber flow rate and pressure drop across the scrubber shall be maintained within the range established during the latest stack test.

These monitoring conditions are necessary because the scrubber for the aggregate dryer/mixer must operate properly to ensure compliance with 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 60, Subpart I.

#### Conclusion

The construction and operation of this portable drum mix asphalt plant shall be subject to the conditions of the attached New Source Construction and Minor Source Operating Permit 117-15484-05220.

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**Appendix A: Emission Calculations** 

**Emission Calculations Natural Gas-fired Heater** 

**Company Name: Powell Paving Company** 

Address City IN Zip: 2583 South State Road #1, Cambridge City, Indiana 47327

CP: 177-15484 Plt ID: 177-05220 Reviewer: ERG/AR Date: April 22, 2002

Heat Input Capacity Potential Throughput MMBtu/hr MMCF/yr

0.5

3.9

#### Pollutant

	PM*	PM10*	SO2	NO <sub>x</sub>	VOC	CO
Emission Factor in lb/MMCF	7.6	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.01	0.01	0.00	0.20	0.01	0.17

<sup>\*</sup>PM emission factor is filterable PM only. PM10 emission factor is condensable and filterable PM10 combined.

#### Methodology

All Emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF - 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors from AP-42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

(AP-42 Supplement D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

<sup>\*\*</sup>Emission Factors for NO<sub>x</sub>: Uncontrolled = 100, Low NO<sub>x</sub> Burner = 50, Low NO<sub>x</sub> Burners/Flue gas recirculation = 32

Emission Calculations #2 Oil-Fired Heater

**Company Name: Powell Paving Company** 

Address City IN Zip: 2583 South State Road #1, Cambridge City, Indiana 47327

CP: 177-15484 Plt ID: 177-05220 Reviewer: ERG/AR Date: April 22, 2002

Heat Input Capacity
MMBtu/hr

Potential Throughput kgals/year

S = Weight % Sulfur 0.5

40.1

2509.1

	Pollutant			
	SO2	$NO_x$	VOC	CO
Emission Factor in lb/kgal	70.0	24.0	0.2	5.0
	(142.0 S)			
Potential Emission in tons/yr	87.8	30.1	0.3	6.3

<sup>\*</sup>PM emission factor is filterable PM only. Condensable PM emission factor is 1.3 lb/kgal.

The emissions of PM and PM10 from the Drum Dryer are estimated using the AP-42 Chapter 11.1 emission factors for asphalt plants, and are shown on page 3. The emissions of SO2, NOx, VOC and CO are estimated using the boiler emission factors from AP-42 Chapter 1.4, as shown above. These boiler emission factors are being used for these pollutants based on IDEM guidance.

#### Methodology

1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 kgal/1,000 gal x 1 gal/0.140 MMBtu

Emission Factors are from AP-42, Tables 1.3-1, 1.3-2, and 1.3-3 ( SCC 1-02-005-01/02/03) Supplement E 9/98 Emission (tons/yr) = Throughput (kgals/yr) x Emission Factor (lb/kgal)/2,000 lb/ton

**Emission Calculations** 

Drum Mix Plant: Drum Dryer, #2 Oil-Fired Company Name: Powell Paving Company

Address City IN Zip: 2583 South State Road #1, Cambridge City, Indiana 47327

CP: 177-15484 Plt ID: 177-05220 Reviewer: ERG/AR Date: April 22, 2002

Maximum Capacity			
110	tons/hr		

	Uncontrolled Emission Factors
PM	28 lbs/ton
PM-10	6.5 lbs/ton
Total HAPs	0.0078 lbs/ton

	Controlled Emission Factors
PM	0.045 lbs/ton
PM-10	0.045 lbs/ton
Total HAPs	0.0078 lbs/ton

See page 2 of the appendix for emission estimates for the other pollutants of combustion from the drum dryer.

Uncontrolled	PM	PM-10	HAPs	
Emissions (tons/yr)	13490	3132	3.8	

Controlled	PM	PM-10	HAPs
Emissions (tons/yr)	21.7	21.7	3.8

Methodology: (Maximum capacity)\*(8760 hr/yr)\*(emission factor)\*(1 ton/2000 lbs)

<sup>\*</sup> Emission factors for drum dryers controlled with a venturi scrubber from AP-42 Chapter 11.1, Table 11.1-3 are 0.045 lb/ton for PM-10 and PM. The HAP emission factors are from Table 11.1-10, formaldehyde is the largest HAP.

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Appendix A: Emission Calculations
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Emission Calculations
Storage
Company Name: Powell Paving Company
Address City IN Zip: 2583 South State Road #1, Cambridge City, Indiana 47327
CP: 177-15484
Plt ID: 177-05220
Reviewer: ERG/AR
Date: April 22, 2002
Ef = 1.7*(s/1.5)*(365-p)
                          where:
       235*(f/15)
                                               1 % silt for sand
                                  s =
                                             0.5 % silt for stone
                                  s =
                                              1 % silt for slag
                                  s =
                                               1 % silt for gravel
                                  s =
                                             0.8 % silt for RAP
                                  s =
                                             125 days of rain greater than or equal to 0.01 inches
                                  p =
                                  f =
                                              15 % of wind greater than or equal to 12 mph
           Ef =
                     1.16 lb/acre/day for sand
           Ef =
                     0.58 lb/acre/day for stone
           Ef =
                     1.16 lb/acre/day for slag
                     1.16 lb/acre/day for gravel
           Ef =
           Ef =
                     0.93 lb/acre/day for RAP
 Ep (storage) = Ef*sc*(20cuft/ton)*(365 day/yr)
            (2000 lb/ton)*(43560 sqft/acre)*(25 ft)
                   10,000 tons storage capacity for sand
          sc =
          sc =
                    5,000 tons storage capacity for stone
                         0 tons storage capacity for slag
          sc =
                         0 tons storage capacity for gravel
          sc =
                         0 tons storage capacity for RAP
          sc =
          Ep =
                     0.04 tons/yr for sand
                     0.01 tons/yr for stone
          Ep =
          Ep =
                     0.00 tons/yr for slag
                     0.00 tons/yr for gravel
          Ep =
                     0.00 tons/yr for RAP
          Ep =
    Ep Total =
                     0.05 tons/yr of PM
PM-10 = 35\% of PM:
          Ep =
                   0.0136 tons/yr for sand
          Ep =
                   0.0034 tons/yr for stone
          Ep =
                   0.0000 tons/yr for slag
                   0.0000 tons/yr for gravel
                                                             50% is emitted after controls
          Ep =
```

PM =

PM-10 =

0.02 tons/yr

0.01 tons/yr

0.0000 tons/yr for RAP

0.0170 tons/yr of PM-10

Ep =

Ep Total =

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**Emission Calculations** 

Conveying

**Company Name: Powell Paving Company** 

Address City IN Zip: 2583 South State Road #1, Cambridge City, Indiana 47327

CP: 177-15484 Plt ID: 177-05220 Reviewer: ERG/AR Date: April 22, 2002

Handle:

150 tons/hr

Ef =  $.0032 * (U/5)^{1.3} * k$  where:

 $(M/2)^{1.4}$  k = 1 1 (particle size multipler)

M = 5 % moisture

U = 12 mph mean wind speed (worst case)

Ef = 0.0028 lb/ton

PM = 1.82 tons/yr PM-10 = 0.18 tons/yr

# Methodology:

Use the above equation to determine the emission factor (Ef).

Then, (Ef)\*(142.5 tons/yr)\*(8760 hr/yr)\*(1 ton/2000 lbs)

The emission factor equation was taken from AP-42, Chapter 13.2.4.

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**Emission Calculations** 

**Summary** 

**Company Name: Powell Paving Company** 

Address City IN Zip: 2583 South State Road #1, Cambridge City, Indiana 47327

CP: 177-15484 Plt ID: 177-05220 Reviewer: ERG/AR Date: April 22, 2002

# **Uncontrolled Emissions in tons/year**

	PM	PM-10	SO2	Nox	VOC	CO	HAPs
Batch Mixer and Dryer	13490	3132	87.8	30.1	0.3	6.3	3.8
Natural Gas Heater	0.01	0.01	0.0	0.2	0.01	0.17	
Storage	0.05	0.017					
Conveying	1.8	0.2					
Cutback Asphalt					99		
Total =	13491.9	3132.2	87.8	30.3	99.3	6.5	3.8

# **Controlled Emissions in tons/year**

	PM	PM-10	SO2	Nox	VOC	СО	HAPs
Batch Mixer and Dryer	21.7	21.7	87.8	30.1	0.3	6.3	3.8
Natural Gas Heater	0.01		0.0	0.2	0.01	0.17	
Storage	0.02	0.01					
Conveying	1.8	0.2					
Cutback Asphalt					99		
Total =	23.6	21.9	87.8	30.3	99.3	6.5	3.8

40 CFR 60 Subpart I limits the particulate matter emissions from the entire source to 0.04 dscf/min. This is equivalent to 5.3 pounds per hour or 23.1 tons per year.

Methodology:  $(0.04 \text{ gr/dscfm})^*(15,383 \text{ dscfm})^*(60 \text{ min/hr})^*(8760 \text{ hr/yr})^*(1 \text{ lb/}7000 \text{ gr})^*(1 \text{ ton/}2000 \text{ lb}) = 23.1 \text{ tpy}$